WHAT IS CLAIMED IS:

1   1. A method comprising:
2   a) tracking, for a set of one or more ads, ad set performance information
3   with respect to a document; and
4   b) aggregating, for the document, tracked ad set performance
5   information.

1   2. The method of claim 1 wherein the ad set performance information includes
2   selection and impression information.

1   3. The method of claim 1 wherein the document is a Web page identified by a
2   URL.

1   4. The method of claim 1 further comprising:
2   c) thresholding the ad set performance information.

1   5. The method of claim 1 further comprising:
2   c) determining a confidence measure of the ad set performance
3   information; and
4   d) combining general ad set performance information and the ad set
5   performance information with respect to the document using the
6   determined confidence measure.

1   6. The method of claim 5 wherein the act of determining a confidence measure
2   uses at least one of a data amount and a data age.

1   7. A method comprising:
2   a) tracking, for a set of one or more ads, ad set performance information
3   with respect to a set of documents, wherein the set of documents is a
4   subset of a document collection; and

5   b) aggregating, for the set of documents, tracked ad set performance
6   information.

1   8. The method of claim 7 wherein the ad set performance information includes
2   selection and impression information.

1   9. The method of claim 7 wherein the set of documents includes related Web
2   pages.

1   10. The method of claim 7 further comprising:
2   c) thresholding the ad set performance information.

1   11. The method of claim 7 further comprising:
2   c) determining a confidence measure of the ad set performance
3   information; and
4   d) combining general ad set performance information and the ad set
5   performance information with respect to the set of documents using the
6   determined confidence measure.

1   12. The method of claim 11 wherein the act of determining a confidence
2   measure uses at least one of a data amount and a data age.

1   13. A method comprising:
2   a) accepting, for a set of one or more ads, performance information for a
3   document; and
4   b) scoring or modifying a score of each of one or more ads using the
5   accepted ad set performance information for the document.

1   14. The method of claim 13 wherein the ad set performance information includes
2   selection and impression information.

1   15. The method of claim 13 wherein the document is a Web page identified by a

2   URL.

1   16. The method of claim 13 wherein the act of scoring or modifying a scoring

2   includes:

3   i) determining a first ad score using, at least, general performance

4   information for the ad set, and

5   ii) modifying the first ad score using the accepted ad set

6   performance information for the document.

1   17. The method of claim 16 wherein the act of determining a first score further

2   uses, at least, document information.

1   18. The method of claim 16 wherein the act of determining a first score further

2   uses, at least, ad targeting information.

1   19. The method of claim 16 wherein the act of determining a first score further

2   uses, at least, ad relevance information.

1   20. The method of claim 13 wherein the act of scoring or modifying a scoring

2   includes:

3   i) determining mixed performance information using, at least,

4   general performance information for the ad set and the accepted ad

5   set performance information for the document, and

6   ii) scoring the ad using the determined mixed performance

7   information.

1   21. The method of claim 20 wherein the act scoring the ad further uses, at least,

2   document information.

1   22. The method of claim 20 wherein the act of scoring the ad further uses, at

2   least, ad targeting information.

1   23. The method of claim 20 wherein the act of scoring the ad further uses, at

2   least, ad relevance information.

1   24. A method comprising:

2   a) accepting, for a set of one or more ads, performance information for a

3   set of documents, wherein the set of documents is a subset of a document

4   collection; and

5   b) scoring or modifying a score of each of one or more ads using the

6   accepted ad set performance information for the set of documents.

1   25. The method of claim 24 wherein the ad set performance information includes

2   selection and impression information.

1   26. The method of claim 24 wherein the set of documents includes related Web

2   pages.

1   27. The method of claim 24 wherein the act of scoring or modifying a score

2   includes:

3   i) determining a first ad score using, at least, general performance

4   information for the ad set, and

5   ii) modifying the first ad score using the accepted ad set performance

6   information for the set of documents.

1   28. The method of claim 27 wherein the act of determining a first score further

2   uses, at least, document information.

1   29. The method of claim 27 wherein the act of determining a first score further

2   uses, at least, ad targeting information.

1   30. The method of claim 27 wherein the act of determining a first score further

2   uses, at least, ad relevance information.

1   31. The method of claim 24 wherein the act of scoring or modifying a score

2   includes:

3   i) determining mixed performance information using, at least,

4   general performance information for the ad set and the accepted ad

5   set performance information for the set of documents, and

6   ii) scoring the ad using the determined mixed performance

7   information.

1   32. The method of claim 31 wherein the act scoring the ad further uses, at least,

2   document information.

1   33. The method of claim 31 wherein the act of scoring the ad further uses, at

2   least, ad targeting information.

1   34. The method of claim 31 wherein the act of scoring the ad further uses, at

2   least, ad relevance information.

1   35. A method comprising:

2   a) accepting targeting function performance for a document; and

3   b) scoring or modifying a score of each of one or more ads using the

4   accepted targeting function performance for the document.

1   36. The method of claim 35 wherein the ad performance includes selection and

2   impression information.

1   37. The method of claim 35 wherein the document is a Web page identified by a

2   URL.

1   38. The method of claim 35 wherein the act of scoring includes
2   i) selecting a scoring function using, at least, the accepted
3   targeting function performance for the document, and
4   ii) applying ad information and document information to the
5   selected scoring function to generate a score.

1   39. The method of claim 38 wherein the scoring function is a function selected
2   from a set of functions including (A) keyword targeting, (B) document content
3   targeting, and (C) host content targeting.

1   40. The method of claim 35 wherein the act of scoring includes
2   i) selecting one or more parameters of a scoring function using, at
3   least, the accepted targeting function performance for the
4   document, and
5   ii) applying ad information and document information to the scoring
6   function with the selected one or more parameters to generate a
7   score.

1   41. A method comprising:
2   a) accepting targeting function performance for a set of documents; and
3   b) scoring or modifying a score of each of one or more ads using the
4   accepted targeting function performance for the set of documents, wherein
5   the set of documents is a subset of a document collection.

1   42. The method of claim 41 wherein the ad performance includes selection and
2   impression information.

1   43. The method of claim 41 wherein the set of documents includes related Web
2   pages.

1   44. The method of claim 41 wherein the act of scoring includes

2   i) selecting a scoring function using, at least, the accepted

3   targeting function performance for the set of documents, and

4   ii) applying ad information and document information to the

5   selected scoring function to generate a score.

1   45. The method of claim 44 wherein the scoring function is a function selected

2   from a set of functions including (A) keyword targeting, (B) document content

3   targeting, and (C) host content targeting.

1   46. The method of claim 41 wherein the act of scoring includes

2   i) selecting one or more parameters of a scoring function using, at

3   least, the accepted targeting function performance for the set of

4   documents, and

5   ii) applying ad information and document information to the scoring

6   function with the selected one or more parameters to generate a

7   score.

1   47. A method for determining a set of ads eligible to be served with a document,

2   the method comprising:

3   a) determining a first set of ads;

4   b) accepting ad performance information for the document;

5   c) determining a number of best performing ads for the document; and

6   d) determining a final set of ads using the first set of ads and the number

7   of best performing ads determined.

1   48. A method for determining a set of ads eligible to be served with a document,

2   the method comprising:

3   a) determining a first set of ads;

4   b) accepting ad performance information for a set of documents to which

5   the document belongs, wherein the set of documents is a subset of a

6   collection of documents;

7   c) determining a number of best performing ads for the set of documents;

8   and

9   d) determining a final set of ads using the first set of ads and the number

10   of best performing ads determined.

1   49. A method comprising:

2   a) determining for a document, at least two concepts;

3   b) determining for each of the at least two concepts, one or more ads;

4   c) determining for each of the at least two concepts, a concept

5   performance score; and

6   d) updating, for at least one of the ads, an ad performance score using a

7   concept performance score of the concept with which the ad is associated.

1   50. The method of claim 49 wherein the act of determining a concept

2   performance score uses document-specific ad performance scores of ads

3   associated with the concept.

1   51. The method of claim 49 wherein the document belongs to a group, and

2   wherein the act of determining a concept performance score uses

3   group-specific ad performance scores of ads associated with the concept.

1   52. The method of claim 51 wherein the document is a Web page and wherein

2   the group is Web pages belonging to a Website.

1   53. The method of claim 51 wherein the group is a cluster of related documents.

54. The method of claim 51 wherein the group is a classification of documents.

1   55. Apparatus comprising:

2   a) means for tracking, for a set of one or more ads, ad set performance

3   information with respect to a document; and

4   b) means for aggregating, for the document, tracked ad set performance

5   information.

1   56. The apparatus of claim 55 wherein the ad set performance information

2   includes selection and impression information.

1   57. The apparatus of claim 55 wherein the document is a Web page identified by

2   a URL.

1   58. The apparatus of claim 55 further comprising:

2   c) means for thresholding the ad set performance information.

1   59. The apparatus of claim 55 further comprising:

2   c) means for determining a confidence measure of the ad set

3   performance information; and

4   d) means for combining general ad set performance information and the

5   ad set performance information with respect to the document using the

6   determined confidence measure.

1   60. The apparatus of claim 59 wherein the means for determining a confidence

2   measure use at least one of a data amount and a data age.

1   61. Apparatus comprising:

2   a) means for tracking, for a set of one or more ads, ad set performance

3   information with respect to a set of documents, wherein the set of

4   documents is a subset of a document collection; and

5   b) means for aggregating, for the set of documents, tracked ad set

6   performance information.

1   62. The apparatus of claim 61 wherein the ad set performance information

2   includes selection and impression information.

1　63. The apparatus of claim 61 wherein the set of documents includes related
2　Web pages.

1　64. The apparatus of claim 61 further comprising:
2　　　　c) means for thresholding the ad set performance information.

1　65. The apparatus of claim 61 further comprising:
2　　　　c) means for determining a confidence measure of the ad set
3　　　　performance information; and
4　　　　d) means for combining general ad set performance information and the
5　　　　ad set performance information with respect to the set of documents using
6　　　　the determined confidence measure.

1　66. The apparatus of claim 65 wherein the means for determining a confidence
2　measure use at least one of a data amount and a data age.

1　67. Apparatus comprising:
2　　　　a) an input for accepting, for a set of one or more ads, performance
3　　　　information for a document; and
4　　　　b) means for scoring or modifying a score of each of one or more ads
5　　　　using the accepted ad set performance information for the document.

1　68. The apparatus of claim 67 wherein the ad set performance information
2　includes selection and impression information.

1　69. The apparatus of claim 67 wherein the document is a Web page identified by
2　a URL.

1　70. The apparatus of claim 67 wherein the means for scoring or modifying a
2　scoring include:

3   i) means for determining a first ad score using, at least, general

4   performance information for the ad set, and

5   ii) means for modifying the first ad score using the accepted ad set

6   performance information for the document.

1   71. The apparatus of claim 70 wherein the means for determining a first score

2   further use, at least, document information.

1   72. The apparatus of claim 70 wherein the means for determining a first score

2   further use, at least, ad targeting information.

1   73. The apparatus of claim 70 wherein the means for determining a first score

2   further use, at least, ad relevance information.

1   74. The apparatus of claim 70 wherein the means for scoring or modifying a

2   scoring include:

3   i) means for determining mixed performance information using, at

4   least, general performance information for the ad set and the

5   accepted ad set performance information for the document, and

6   ii) means for scoring the ad using the determined mixed

7   performance information.

1   75. The apparatus of claim 74 wherein the means for scoring the ad further use,

2   at least, document information.

1   76. The apparatus of claim 74 wherein the means for scoring the ad further use,

2   at least, ad targeting information.

1   77. The apparatus of claim 74 wherein the means for scoring the ad further use,

2   at least, ad relevance information.

1   78. Apparatus comprising:

2   a) an input for accepting, for a set of one or more ads, performance

3   information for a set of documents, wherein the set of documents is a

4   subset of a document collection; and

5   b) means for scoring or modifying a score of each of one or more ads

6   using the accepted ad set performance information for the set of

7   documents.

1   79. The apparatus of claim 78 wherein the ad set performance information

2   includes selection and impression information.

1   80. The apparatus of claim 78 wherein the set of documents includes related

2   Web pages.

1   81. The apparatus of claim 78 wherein the means for scoring or modifying a

2   score include:

3   i) means for determining a first ad score using, at least, general

4   performance information for the ad set, and

5   ii) means for modifying the first ad score using the accepted ad set

6   performance information for the set of documents.

1   82. The apparatus of claim 81 wherein the means for determining a first score

2   further use, at least, document information.

1   83. The apparatus of claim 81 wherein the means for determining a first score

2   further use, at least, ad targeting information.

1   84. The apparatus of claim 81 wherein the means for determining a first score

2   further use, at least, ad relevance information.

1 85. The apparatus of claim 78 wherein the means for scoring or modifying a
2 score include:
3   i) means for determining mixed performance information using, at
4   least, general performance information for the ad set and the
5   accepted ad set performance information for the set of documents,
6   and
7   ii) means for scoring the ad using the determined mixed
8   performance information.

1 86. The apparatus of claim 85 wherein the means for scoring the ad further use,
2 at least, document information.

1 87. The apparatus of claim 85 wherein the means for scoring the ad further use,
2 at least, ad targeting information.

1 88. The apparatus of claim 85 wherein the means for scoring the ad further use,
2 at least, ad relevance information.

1 89. Apparatus comprising:
2   a) an input for accepting targeting function performance for a document;
3   and
4   b) means for scoring or modifying a score of each of one or more ads
5   using the accepted targeting function performance for the document.

1 90. The apparatus of claim 89 wherein the ad performance includes selection
2 and impression information.

1 91. The apparatus of claim 89 wherein the document is a Web page identified by
2 a URL.

1 92. The apparatus of claim 89 wherein the means for scoring include

2   i) means for selecting a scoring function using, at least, the

3   accepted targeting function performance for the document, and

4   ii) means for applying ad information and document information to

5   the selected scoring function to generate a score.

1 93. The apparatus of claim 92 wherein the scoring function is a function selected

2 from a set of functions including (A) keyword targeting, (B) document content

3 targeting, and (C) host content targeting.

1 94. The apparatus of claim 89 wherein the means for scoring include

2   i) means for selecting one or more parameters of a scoring

3   function using, at least, the accepted targeting function

4   performance for the document, and

5   ii) means for applying ad information and document information to

6   the scoring function with the selected one or more parameters to

7   generate a score.

1 95. Apparatus comprising:

2   a) an input for accepting targeting function performance for a set of

3   documents; and

4   b) means for scoring or modifying a score of each of one or more ads

5   using the accepted targeting function performance for the set of

6   documents, wherein the set of documents is a subset of a document

7   collection.

1 96. The apparatus of claim 95 wherein the ad performance includes selection

2 and impression information.

1 97. The apparatus of claim 95 wherein the set of documents includes related

2 Web pages.

1   98. The apparatus of claim 95 wherein the means for scoring includes

2   i) means for selecting a scoring function using, at least, the

3   accepted targeting function performance for the set of documents,

4   and

5   ii) means for applying ad information and document information to

6   the selected scoring function to generate a score.

1   99. The apparatus of claim 98 wherein the scoring function is a function selected

2   from a set of functions including (A) keyword targeting, (B) document content

3   targeting, and (C) host content targeting.

1   100. The apparatus of claim 95 wherein the means for scoring include

2   i) means for selecting one or more parameters of a scoring

3   function using, at least, the accepted targeting function

4   performance for the set of documents, and

5   ii) means for applying ad information and document information to

6   the scoring function with the selected one or more parameters to

7   generate a score.

1   101. Apparatus for determining a set of ads eligible to be served with a

2   document, the apparatus comprising:

3   a) means for determining a first set of ads;

4   b) an input for accepting ad performance information for the document;

5   c) means for determining a number of best performing ads for the

6   document; and

7   d) means for determining a final set of ads using the first set of ads and

8   the number of best performing ads determined.

1   102. Apparatus for determining a set of ads eligible to be served with a

2   document, the apparatus comprising:

3   a) means for determining a first set of ads;

4   b) an input for accepting ad performance information for a set of

5   documents to which the document belongs, wherein the set of documents

6   is a subset of a collection of documents;

7   c) means for determining a number of best performing ads for the set of

8   documents; and

9   d) means for determining a final set of ads using the first set of ads and

10   the number of best performing ads determined.

1   103. Apparatus comprising:

2   a) means for determining for a document, at least two concepts;

3   b) means for determining for each of the at least two concepts, one or

4   more ads;

5   c) means for determining for each of the at least two concepts, a concept

6   performance score; and

7   d) means for updating, for at least one of the ads, an ad performance

8   score using a concept performance score of the concept with which the ad

9   is associated.

1   104. The apparatus of claim 103 wherein the means for determining a concept

2 performance score use document-specific ad performance scores of ads

3 associated with the concept.

1   105. The apparatus of claim 103 wherein the document belongs to a group, and

2   wherein the means for determining a concept performance score use

3 group-specific ad performance scores of ads associated with the concept.

1   106. The apparatus of claim 105 wherein the document is a Web page and

2 wherein the group is Web pages belonging to a Website.

1   107. The apparatus of claim 105 wherein the group is a cluster of related

2 documents.

1   108. The apparatus of claim 105 wherein the group is a classification of

2   documents.